### **EXHIBIT 5**

### Nasdaq MRX, LLC RULES

New text is underlined; deleted text is in brackets.

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CHAPTER 7 Doing Business On The Exchange

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#### Rule 701. Opening[Trading Rotations

(a) *General Rules*. A "trading rotation" is a process by which the Primary Market Maker initiates trading in a specified options class.

(1) The Exchange may direct that one or more trading rotations be employed on any business day to aid in producing a fair and orderly market.

(2) For each rotation so employed, except as the Exchange may direct, rotations shall be conducted in the order and manner the Primary Market Maker determines to be appropriate under the circumstances.

(3) The Primary Market Maker, with the approval of the Exchange, shall have the authority to determine the rotation order and manner or deviate from the rotation procedures. Such authority may be exercised before and during a trading rotation.

(4) Two (2) or more trading rotations may be employed simultaneously, if the Primary Market Maker, with the approval of the Exchange, so determines.

(b) *Opening Rotations*. Trading rotations shall be employed at the opening of the Exchange each business day.

(1) For each class of options contracts that has been approved for trading, the opening rotation shall be conducted by the Primary Market Maker appointed to such class of options.

(2) The opening rotation in each class of options shall be held promptly following the opening of the market for the underlying security. For purposes of this Rule, "market for the underlying security" shall be either the primary listing market, the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), or the first market to open the underlying security, as determined by the Exchange on an issue-by-issue basis and announced to the membership on the Exchange's web site. (3) In the event the underlying security has not opened within a reasonable time after 9:30 a.m. Eastern time, the Primary Market Maker shall report the delay to the Exchange and an inquiry shall be made to determine the cause of the delay. The opening rotation for options contracts in such security shall be delayed until the market for the underlying security has opened unless the Exchange determines that the interests of a fair and orderly market are best served by opening trading in the options contracts.

(4) The Exchange may delay the commencement of the opening rotation in any class of options in the interests of a fair and orderly market.

(c) *Rotations After Trading Hours*. As provided below transactions may be effected in a class of options after the end of normal trading hours in connection with a trading rotation.

(1) A trading rotation may be employed whenever the Exchange concludes that such action is appropriate in the interests of a fair and orderly market. The factors that may be considered include, but are not limited to, whether there has been a recent opening or reopening of trading in the underlying security, a declaration of a "fast market" pursuant to Rule 704, or a need for a rotation in connection with expiring individual stock options or index options, an end of the year rotation, or the restart of a rotation which is already in progress.

(2) The decisions to employ a trading rotation in non-expiring options shall be disseminated prior to the commencement of such rotation. In general, no more than one trading rotation will be commenced after the normal close of trading.

(3) If a trading rotation is in progress and the Exchange determines that a final trading rotation is needed to assure a fair and orderly market close, the rotation in progress shall be halted and a final rotation begun as promptly as possible.

(4) Any trading rotation in non-expiring options conducted after the normal close of trading may not begin until five (5) minutes after news of such rotation is disseminated by the Exchange.]

(a) Definitions. The Exchange conducts an electronic opening for all option series traded on the Exchange using its trading system ("system").

(1) The "ABBO" is the Away Best Bid or Offer.

(2) The "**market for the underlying security**" is either the primary listing market or the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), as determined by the

Exchange by underlying and announced to the membership on the Exchange's web site.

(3) The **Opening Price** is described herein in sections (h) and (j).

(4) The **Opening Process** is described herein in section (c).

(5) The **Potential Opening Price** is described herein in section (g).

(6) The **Pre-Market BBO** is the highest bid and the lowest offer among Valid Width Quotes.

(7) A "**Quality Opening Market**" is a bid/ask differential applicable to the best bid and offer from all Valid Width Quotes defined in a table to be determined by the Exchange and published on the Exchange's web site. The calculation of Quality Opening Market is based on the best bid and offer of Valid Width Quotes. The differential between the best bid and offer are compared to reach this determination. The allowable differential, as determined by the Exchange, takes into account the type of security (for example, Penny Pilot versus non-Penny Pilot issue), volatility, option premium, and liquidity. The Quality Opening Market differential is intended to ensure the price at which the Exchange opens reflects current market conditions.

(8) A "**Valid Width Quote**" is a two-sided electronic quotation submitted by a Market Maker that consists of a bid/ask differential that is compliant with Rule 803(b)(4).

(9) A "Zero Bid Market" is where the best bid for an options series is zero.

(b) Eligible interest during the Opening Process includes Valid Width Quotes, Opening Sweeps and orders. Quotes, other than Valid Width Quotes, will not be included in the Opening Process. All-or-None Orders that can be satisfied, and the displayed and nondisplayed portions of Reserve Orders, are considered for execution and in determining the Opening Price throughout the Opening Process. Only Public Customer interest is routable during the Opening Process.

(1) Opening Sweep.

(i) A Market Maker assigned in a particular option may only submit an Opening Sweep if, at the time of entry of the Opening Sweep, that Market Maker has already submitted and maintains a Valid Width Quote. All Opening Sweeps in the affected series entered by a Market Maker will be cancelled immediately if that Market Maker fails to maintain a continuous quote with a Valid Width Quote in the affected series.

(ii) Opening Sweeps may be entered at any price with a minimum price variation applicable to the affected series, on either side of the market, at single

or multiple price level(s), and may be cancelled and re-entered. A single Market Maker may enter multiple Opening Sweeps, with each Opening Sweep at a different price level. If a Market Maker submits multiple Opening Sweeps, the system will consider only the most recent Opening Sweep at each price level submitted by such Market Maker in determining the Opening Price. Unexecuted Opening Sweeps will be cancelled once the affected series is open.

(2) The system will aggregate the size of all eligible interest for a particular participant category at a particular price level for trade allocation purposes pursuant to Rule 713.

(c) Market Maker Valid Width Quotes and Opening Sweeps received starting at 9:25 AM Eastern Time are included in the Opening Process. Orders entered at any time before an option series opens are included in the Opening Process.

(1) The Opening Process for an option series will be conducted pursuant to paragraphs (f) – (j) below on or after 9:30 AM Eastern Time if: the ABBO, if any, is not crossed; and the system has received, within two minutes (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) of the opening trade or quote on the market for the underlying security in the case of equity options or, in the case of index options, within two minutes of the receipt of the opening price in the underlying index (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), or within two minutes of market opening for the underlying security in the case of U.S. dollar-settled foreign currency options (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) any of the following:

(i) the Primary Market Maker's ("PMM") Valid Width Quote;

(ii) the Valid Width Quotes of at least two Competitive Market Makers ("CMM"); or

(iii) if neither the PMM's Valid Width Quote nor the Valid Width Quotes of two CMMs have been submitted within such timeframe, one CMM has submitted a Valid Width Quote.

(2) For all options, the underlying security, including indexes, must be open on the primary market for a certain time period as determined by the Exchange for the Opening Process to commence. The time period shall be no less than 100 milliseconds and no more than 5 seconds.

(3) The PMM assigned in a particular equity or index option must enter a Valid Width Quote, in 90% of their assigned series, not later than one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the opening price in the underlying index. The PMM assigned in a particular U.S. dollar-settled foreign currency option must enter a Valid Width Quote, in 90% of their assigned series, not later than one minute after the announced market opening. PMMs must promptly enter a Valid Width Quote in the remainder of their assigned series, which did not open within one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the opening price in the underlying index or, with respect to U.S. dollar-settled foreign currency options, following the announced market opening.

(4) A CMM that submits a quote pursuant to this Rule 701 in any option series when the PMM's quote has not been submitted shall be required to submit continuous, two-sided quotes in such option series until such time as the PMM submits his/her quote, after which the Market Maker that submitted such quote shall be obligated to submit quotations pursuant to Rule 804(e).

(5) The Opening Process will stop and an option series will not open if the ABBO becomes crossed or when a Valid Width Quote(s) pursuant to Rule 701(c)(1) is no longer present. Once each of these conditions no longer exist, the Opening Process in the affected option series will start again pursuant to paragraphs (e) – (j) below.

(d) Reopening After a Trading Halt. The procedure described in Rule 701 will be used to reopen an option series after a trading halt. If there is a trading halt or pause in the underlying security, the Opening Process will start again irrespective of the specific times listed in paragraph (c)(1).

(e) Opening with a BBO (No Trade). If there are no opening quotes or orders that lock or cross each other and no routable orders locking or crossing the ABBO, the system will open with an opening quote by disseminating the Exchange's best bid and offer among quotes and orders ("BBO") that exist in the system at that time, unless all three of the following conditions exist: (i) a Zero Bid Market; (ii) no ABBO; and (iii) no Quality Opening Market. If all three conditions exist, the Exchange will calculate an Opening Quote Range pursuant to paragraph (i) and conduct the Price Discovery Mechanism pursuant to paragraph (j) below.

(f) Pre-Market BBO Calculation. If there are opening Valid Width Quotes, or orders, that lock or cross each other, the system will calculate the Pre-Market BBO.

(g) Potential Opening Price. To calculate the Potential Opening Price, the system will take into consideration all Valid Width Quotes and orders (including Opening Sweeps and displayed and non-displayed portions of Reserve Orders), except All-or-None Orders that cannot be satisfied, for the option series and identify the price at which the maximum number of contracts can trade ("maximum quantity criterion"). In addition, paragraphs (h)(3)(i) and (i)(5) - (7) below contain additional provisions related to Potential Opening Price.

(1) More Than One Potential Opening Price. When two or more Potential Opening Prices would satisfy the maximum quantity criterion and leave no contracts unexecuted, the system takes the highest and lowest of those prices and takes the mid-point; if such mid-point is not expressed as a permitted minimum price variation, it will be rounded to the minimum price variation that is closest to the closing price for the affected series from the immediately prior trading session. If there is no closing price from the immediately prior trading session, the system will round up to the minimum price variation to determine the Opening Price.

(2) If two or more Potential Opening Prices for the affected series would satisfy the maximum quantity criterion and leave contracts unexecuted, the Opening Price will be either the lowest executable bid or highest executable offer of the largest sized side.

(3) The Potential Opening Price calculation is bounded by the better away market price that may not be satisfied with the Exchange routable interest.

(h) Opening with Trade. The Exchange will open the option series for trading with a trade on Exchange interest only at the Opening Price, if any of these conditions occur:

(1) the Potential Opening Price is at or within the best of the Pre-Market BBO and the ABBO;

(2) the Potential Opening Price is at or within the non-zero bid ABBO if the Pre-Market BBO is crossed; or

(3) where there is no ABBO, the Potential Opening Price is at or within the Pre-Market BBO which is also a Quality Opening Market.

(i) If there is more than one Potential Opening Price which meets the conditions set forth in paragraphs (1) through (3) above where:

(A) no contracts would be left unexecuted and

(B) any value used for the mid-point calculation (which is described in paragraph (g) above) would cross either:

(I) the Pre-Market BBO, or

(II) the ABBO,

then, for the purposes of calculating the midpoint the Exchange will use the better of the Pre-Market BBO or ABBO as a boundary price and will open the option series for trading with an execution at the resulting Potential Opening Price. If these conditions are not met, an Opening Quote Range will be calculated pursuant to paragraph (i) below and thereafter, the Price Discovery Mechanism in paragraph (j) below will commence.

(i) The system will calculate an Opening Quote Range ("OQR") for a particular option series that will be utilized in the Price Discovery Mechanism described below, if the Exchange has not opened subject to any of the provisions above.

- (1) Except as provided in paragraphs (3) and (4) below, to determine the minimum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest quote bid among Valid Width Quotes on the Exchange and on the away market(s), if any.
- (2) Except as provided in paragraphs (3) and (4) below, to determine the maximum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest quote offer among Valid Width Quotes on the Exchange and on the away market(s), if any.
- (3) If one or more away markets are disseminating a BBO that is not crossed, (the Opening Process will stop and an option series will not open if the ABBO becomes crossed pursuant to (c)(5)) and there are Valid Width Quotes on the Exchange that are executable against each other or the ABBO:
  - (i) The minimum value for the OQR will be the highest away bid.
  - (ii) The maximum value for the OQR will be the lowest away offer.
- (4) If there are Valid Width Quotes on the Exchange that are executable against each other, and there is no away market disseminating a BBO in the affected option series:
  - (i) The minimum value for the OQR will be the lowest quote bid among Valid Width Quotes on the Exchange.
  - (ii) The maximum value for the OQR will be the highest quote offer among Valid Width Quotes on the Exchange.

(5) If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, any price used for the mid-point calculation (which is described in paragraph (g)(1) above) that is wider than the OQR will be restricted to the OQR price on that side of the market for the purposes of the mid-point calculation. (6) If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, pursuant to paragraph (g)(3) above when contracts will be routed, the system will use the away market price as the Potential Opening Price.

(7) If the Exchange determines that non-routable interest can execute the maximum number of contracts against Exchange interest, after routable interest has been determined by the system to satisfy the away market, then the Potential Opening Price is the price at which the maximum number of contracts can execute, excluding the interest which will be routed to an away market, which may be executed on the Exchange as described in paragraph (g) above. The system will route Public Customer interest in price/time priority to satisfy the away market.

(j) Price Discovery Mechanism. If the Exchange has not opened pursuant to paragraphs (e) or (h) above, after the OQR calculation in paragraph (i), the Exchange will conduct the following Price Discovery Mechanism.

> (1) First, the system will broadcast an Imbalance Message for the affected series (which includes the symbol, side of the imbalance (unmatched contracts), size of matched contracts, size of the imbalance, and Potential Opening Price bounded by the Pre-Market BBO) to participants, and begin an "Imbalance Timer," not to exceed three seconds. The Imbalance Timer will be for the same number of seconds for all options traded on the Exchange. Each Imbalance Message is subject to an Imbalance Timer.

> (2) Any new interest received by the system will update the Potential Opening Price. If during or at the end of the Imbalance Timer, the Opening Price is at or within the OQR, the Imbalance Timer will end and the system will open with a trade at the Opening Price if the executions consist of Exchange interest only without trading through the ABBO and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price. If no new interest comes in during the Imbalance Timer and the Potential Opening Price is at or within OQR and does not trade through the ABBO, the Exchange will open with a trade at the end of the Imbalance Timer at the Potential Opening Price.

(3) Next, provided the option series has not opened pursuant to paragraph (j)(2) above, the system will:

(i) send a second Imbalance Message with a Potential Opening Price that is bounded by the OQR (and would not trade through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price) and includes away market volume in the size of the imbalance to participants; and concurrently

- (ii) initiate a Route Timer, not to exceed one second. The Route Timer operates as a pause before an order is routed to an away market. If during the Route Timer, interest is received by the system which would allow the Opening Price to be within OQR without trading through away markets and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price, the system will open with trades at the Opening Price and the Route Timer will simultaneously end. The system will monitor quotes received during the Route Timer period and make ongoing corresponding changes to the permitted OQR and Potential Opening Price to reflect them.
- (iii) If no trade occurred pursuant to (ii) above, when the Route Timer expires, if the Potential Opening Price is within OQR (and would not trade through the limit price(s) of interest within OQR that is unable to be fully executed at the Opening Price), the system will determine if the total number of contracts displayed at better prices than the Exchange's Potential Opening Price on away markets ("better priced away contracts") would satisfy the number of marketable contracts available on the Exchange. The Exchange will open the option series by routing and/or trading on the Exchange, pursuant to paragraphs (A)-(C) below.

(A) If the total number of better priced away contracts would satisfy the number of marketable contracts available on the Exchange on either the buy or sell side, the system will route all marketable contracts on the Exchange to such better priced away markets as an ISO designated as an Immediate-or-Cancel ("IOC") order(s), and determine an opening BBO that reflects the interest remaining on the Exchange. The system will price any contracts routed to away markets at the Exchange's Opening Price; or

(B) If the total number of better priced away contracts would not satisfy the number of marketable contracts the Exchange has, the system will determine how many contracts it has available at the Exchange Opening Price. If the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price would satisfy the number of marketable contracts on the Exchange on either the buy or sell side, the system will contemporaneously route, based on price/time priority of routable interest, a number of contracts that will satisfy interest at away markets at prices better than the Opening Price and trade available contracts on the Exchange at the Exchange Opening Price. The system will price any contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price pursuant to this sub-paragraph; or (C) If the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price plus the contracts available at away markets at the Exchange Opening Price would satisfy the number of marketable contracts the Exchange has on either the buy or sell side, the system will contemporaneously route, based on price/time priority of routable interest, a number of contracts that will satisfy interest at away markets at prices better than the Exchange Opening Price (pricing any contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price), trade available contracts on the Exchange at the Exchange Opening Price, and route a number of contracts that will satisfy interest at away markets at prices better that the Exchange Opening Price and route a number of contracts that will satisfy interest at away markets at prices equal to the Exchange Opening Price.

- (4) The system may send up to two additional Imbalance Messages (which may occur while the Route Timer is operating) bounded by OQR and reflecting away market interest in the volume. After the Route Timer has expired, the processes in paragraph (3) will repeat (except no new Route Timer will be initiated).
- (5) Forced Opening. After all additional Imbalance Messages have occurred pursuant to paragraph (4) above, the system will open the series by executing as many contracts as possible by routing to away markets at prices better than the Exchange Opening Price for their disseminated size, trading available contracts on the Exchange at the Exchange Opening Price bounded by OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price), and routing contracts to away markets at prices equal to the Exchange Opening Price at their disseminated size. In this situation, the system will price any contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price. Any unexecuted contracts from the imbalance not traded or routed will be cancelled back to the entering participant if they remain unexecuted and priced through the Opening Price, otherwise orders will remain in the Order Book.

(6) The system will execute orders at the Opening Price that have contingencies (such as, without limitation, All-or-None and Reserve Orders) and non-routable orders, such as a "Do-Not-Route" or "DNR" Orders, to the extent possible. The system will only route non-contingency Public Customer orders, except that only the full volume of Public Customer Reserve Orders may route.

(i) The system will cancel (1) any portion of a Do-Not-Route order that would otherwise have to be routed to the exchange(s) disseminating the ABBO for an opening to occur, or (2) any order that is priced through the <u>Opening Price will be cancelled</u>. All other interest will be eligible for trading after opening.

(k) During the opening of the option series, where there is an execution possible, the system will give priority to Market Orders first, then to resting Limit Orders and quotes. The allocation provisions of Rule 713 and the Supplementary Material thereto apply with respect to other orders and quotes with the same price.

(1) Upon opening of the option series, regardless of an execution, the system disseminates the price and size of the Exchange's best bid and offer (BBO).

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# **Rule 715. Types of Orders**

(a) - (s) No change.

(t) Opening Sweep. An Opening Sweep is a Market Maker order submitted for execution against eligible interest in the system during the Opening Process pursuant to Rule 701(b)(1).

# Supplementary Material to Rule 715

.01 No change.

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